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EXAMINER
DINH, KHANH Q

ART UNIT	PAPER NUMBER
2151	

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/870,159	SECER, SEMIH
	Examiner	Art Unit
	Khanh Dinh	2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 August 2001</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-57* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-57* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>8/8/2001</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-57 are presented for examination.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-19, 21-39 and 41-57 are rejected under 35 U.S.C. 102(e) as being

anticipated by Zhu et al., US pat. No.6,567,813.

As to claim 1, Zhu discloses a method of recovering management of one or more

network elements, said method comprising:

monitoring operation of a plurality of distributed gateways (380A, 380B, 380C of

fig.3), each of said gateways responsible for managing one or more network elements

(Clients 210A-210D of fig.2B) (see figs. 2B, 3, abstract, col.3 line 55 to col.4 line 65).

detecting failure of one of said distributed gateways (380A, 380B, 380C of fig.3)

and responsive to said detecting step, recovering management of said one or more

network elements (Clients 210A-210D of fig.2B) for which said failed gateway had

management responsibility by assigning management responsibility to at least one

other of said plurality of distributed gateways (keeping the load balance between

Collaboration servers 380's in the zone by performing failure detection and recovery

operation, see fig.2B, col.4 line 58 to col.5 line 67 and col.9 lines 1-38).

As to claims 2 and 3, Zhu discloses translating a communication protocol utilized by

said one or more network elements and said plurality of distributed gateways (380A,

380B, 380C of fig.3) are communicatively coupled to a processor-based management

system (see fig.3, lines 5-53 and col.9 lines 23-67).

As to claims 4-6, Zhu discloses said management system controlling said recovering

step, said one or more gateway monitoring systems performing said detecting step and

polling said plurality of distributed gateways (providing services such as polling, see

col.6 lines 1-56 and col.7 lines 8-61).

As to claims 7-9, Zhu discloses said one or more gateway monitoring systems

controlling said recovering step, determining management activities for which a

detected failed gateway is responsible for performing and determining one or more

available gateways from said plurality of distributed gateways, which are available for

assuming at least a portion of said management activities of said detected failed

gateway (determining that CB server 380n has failed and performing recovery

procedures, see col.7 lines 14-61 and col.9 line 23 to col.10 line 51).

As to claims 10-12, Zhu discloses that one or more available gateways are a

subset of said plurality of distributed gateways, available gateways are gateways local

to said detected failed gateway (detecting a failure server) and grouping two or more of

said plurality of distributed gateways (see col.9 lines 1-48 and col.10 lines 11-41).

As to claims 13 and 14, Zhu discloses determining gateways that are included in a

common grouping with said detected failed gateway (CB servers) and said grouping is

predetermined based at least in part on a criteria selected from the group consisting of:

gateway communication protocol, gateway location, and any user defined criteria (see

fig.9, col.7 lines 14-61 and col.9 line 23 to col.10 line 51).

As to claims 15-17, Zhu discloses distributing said management activities of said

detected failed gateway to at least one of said one or more available gateways,

determining operational load of said available gateways and performing load balancing

in distributing said management activities to said at least one of said one or more

available gateways and load balancing is performed autonomously by a processor-

based system (using replacement servers, see fig.9, col.7 lines 14-61 and col.9 line 23

to col.10 line 51).

As to claims 18 and 19, Zhu discloses determining the operational load for each of said

management activities, allocating said management activities to one or more of said

available gateways in a manner that approximately balances each of their operational

loads and said operational load of said available gateways is determined dynamically,

and allocation of said management activities is determined based at least in part on said

determined operational load of said available gateways (see col.6 lines 1-56, col.7 lines

8-61 and col.9 line 23 to col.10 line 51).

Claims 21-23 are rejected for the same reason set forth in claims 15, 17 and 16

respectively.

As to claims 24 and 25, Zhu discloses translating a plurality of different communication

protocols, user predefining at least one of said plurality of distributed gateways to be

used in recovering management of one or more network elements for which a particular

one of said plurality of distributed gateways has management responsibility in the event

of a failure of said particular one of said plurality of distributed gateways ((determining

that CB server 380n has failed and performing recovery procedures, see col.6 lines 1-

56, col.7 lines 8-61 and col.9 line 23 to col.10 line 51).

As to claim 26, Zhu discloses that user predefining criteria to be used in recovering

management of one or more network elements in the event of a failure of one of said

plurality of distributed gateways (determining that CB server 380n has failed and

performing recovery procedures, see col.7 lines 14-61 and col.9 line 23 to col.10 line

51).

As to claim 27, Zhu discloses a system comprising:

plurality of network elements (210A-210D fig.2B) and plurality of distributed

gateways (220A, 220B fig.2B) each communicatively coupled to one or more of said

plurality of network elements (210A-210D fig.2B), wherein each of said plurality of

distributed gateways is responsible for managing one or more of said plurality of

network elements (see figs. 2B, 3, abstract, col.3 line 55 to col.4 line 65).

gateway monitoring system (355 fig.3) communicatively coupled to said plurality

of distributed gateways (in fig.3, gateways are CB servers 380A, 380B, 380C connected

to Clients as network elements), wherein said gateway monitoring system is operable to

detect failure of at least one of said distributed gateways and management recovery

system communicatively coupled to said plurality of distributed gateways (determining

that CB server 380n has failed and performing recovery procedures), wherein said

management recovery system is operable to autonomously recover management of

said one or more network elements for which a detected failed gateway had

management responsibility (keeping the load balance between Collaboration servers

380's in the zone by performing failure detection and recovery operation, see fig.2B,

col.4 line 58 to col.5 line 67 and col.9 lines 1-38).

As to claim 28, Zhu discloses said management recovery system is operable to assign

management responsibility of said one or more network elements for which said

detected failed gateway had management responsibility to at least one other of said

plurality of distributed gateways (performing failure detection and recovery operation,

see fig.2B, col.4 line 58 to col.5 line 67 and col.9 lines 1-38).

As to claims 29-31, Zhu discloses translation of a communication protocol utilized by said one or more network elements, said gateway monitoring system and said management recovery system are integrated on a common platform and operable to poll said plurality of distributed gateways (providing services such as polling, see col.6 lines 1-56 and col.7 lines 8-61).

Claims 32-35 are rejected for the same reason set forth in claims 8-11 respectively.

As to claim 36, Zhu discloses translating a common communication protocol as said detected failed gateway (see fig.3, lines 5-53 and col.9 lines 23-67).

Claims 37-39 are rejected for the same reason set forth in claims 15, 16 and 19 respectively.

As to claim 41, Zhu discloses said management recovery system to present a user interface for alerting a user of said detected failed gateway (see col.5 line 11 to col.6 line 56 and col.7 lines 8-45).

Claims 42 and 43 are rejected for the same reason set forth in claims 25 and 26 respectively.

As to claim 44, Zhu discloses a system for recovering management of one or more network elements responsive to failure of a distributed gateway, said system comprising:

plurality of distributed gateways (CB servers 380A-380C fig.3), each for managing one or more network elements (clients) and means (355 fig.3) communicatively coupled to said plurality of distributed gateways for detecting failure of any one of said distributed gateways (detecting failure of servers, see figs. 2B, 3, abstract, col.3 line 55 to col.4 line 65).

means, responsive to detection of failure of one of said distributed gateways, for autonomously recovering management of one or more network elements for which the detected failed gateway had management responsibility (keeping the load balance between Collaboration servers 380's in the zone by performing failure detection and recovery operation, see fig.2B, col.4 line 58 to col.5 line 67 and col.9 lines 1-38).

Claims 45-53 are rejected for the same reason set forth in claims 25, 17, 2, 6, 11 and 8-11 respectively.

As to claim 54, Zhu discloses translation of a communication protocol utilized by said one or more network elements (see fig.3, lines 5-53 and col.9 lines 23-67).

Claims 55-57 are rejected for the same reason set forth in claims 19, 16 and 18 respectively.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 20 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Zhu et al., US Pat. No.6,567,813 in view of Wolf et al., US pat. No.6,374,297.

Zhu's teachings still applied as in item 3 above. Zhu does not specifically disclose load

balancing is performed according to a greedy algorithm. However, Wolf discloses load

balancing is performed according to a greedy algorithm (using a logical assignment of

overlapping clusters is updated periodically via a greedy algorithm, see col.9 lines 25-

62 and col.17 lines 35-52). It would have been obvious to one of the ordinary skill in

the art at the time the invention was made to implement Wolf's algorithm into the

computer system of Zhu to balance the load between servers because it would have

optimized the topology of the underlying assignment graph in order to react to

changing customer activity rates at the various web sites and minimized a maximum

diameter of said underlying assignment graph and therefore balanced the load

between servers in a communications network.

Other prior art cited

6.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

      a. Murphy et al, US pat. No.6,185,695.

      b. Hickman et al, US pat. No.6,523,130.

      c. Hickman et al, US pat. No.6,564,252.

      d. Fair, US pat. No.6,594,775.

      e. Nguyen et al., US pat. No.6,609,213.

      f. Duso et al., US pat. No.6,625,750.

      g. Asai et al., US pat. No.6,760,765.

Conclusion

7.   Claims 1-57 are rejected.

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Khanh Dinh whose telephone number is (571) 272-

3936. The examiner can normally be reached on Monday through Friday from 8:00 A.m.

to 5:00 P.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Zarni Maung, can be reached on (703) 272-3939.   The fax phone number

for this group is (703) 872-9306.

A shortened statutory period for reply is set to expire THREE months from the

mailing date of this communication. Failure to response within the period for response

will cause the application to become abandoned (35 U. S. C . Sect. 133). Extensions of

time may be obtained under the provisions of 37 CFR 1.136(A).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Group receptionist whose telephone number is

(703) 305 -9600.

Khanh Dinh
Patent Examiner
Art Unit 2151
12/3/2004